

REMARKS

Upon entry of the present amendment, claims 1-8 will remain pending in the application, with claims 5-8 being withdrawn from consideration based on an earlier Restriction Requirement, and claims 1-4 standing ready for further action on the merits.

The amendments made herein to the specification and claims do not incorporate new matter into the application as originally filed. For example, the amendments to pages 2 and 24 of the specification simply correct typographical errors. Regarding the amendment to page 24 (Table 2), support for this amendment occurs at page 19, lines 22-24 and page 22, lines 11-13, since said sections of the specification clearly show the typographical nature of the error in Table 2.

Election/Restriction

The Examiner previously required Restriction in the matter of the present application, contending that three patentably distinct inventions were encompassed by original claims 1-8 of the application.

While Applicants affirm their prior election of the invention of Group I, claims 1-4, with traverse, Applicants also request that the outstanding Restriction Requirement be reconsidered and withdrawn. This request is based upon the fact that no undue burden would be placed upon the Examiner to consider the

patentability of each of claims 1-8 at present. For example, the Examiner is already examining claims 1-4, which recite a process for producing a polyolefin-based resin composition. Notably, this composition is utilized in the process of each of claims 5-6 and the films of claims 7-8. As such, a search of claims 5-8 in the Application would necessarily overlap substantially with a search of the present invention as elected (claims 1-4), thereby evidencing that no undue burden would be placed upon the Examiner to consider each of pending claims 1-8 at present.

Based on Applicants' belief that the outstanding Restriction Requirement should be withdrawn, they have decided to leave non-elected claims 5-8 in the Application, in hopes that the Examiner will properly reconsider and withdraw the outstanding Restriction requirement.

Information Disclosure Statements

Applicants appreciate the Examiner's promptness in returning initialed copies of PTO-1449 forms submitted with prior IDS's filed in the USPTO on January 26, 2001, January 31, 2001 and December 12, 2001.

Specification Objection

The Examiner objected to Applicants' specification based upon a typographical error occurring at page 2, line 18. The

specification has been amended as suggested by the Examiner to remove this typographical error.

Claim Rejections Under 35 USC § 112

Claims 1-4 have been rejected under 35 USC § 112, second paragraph. Reconsideration and withdrawal of this rejection is requested based upon the following considerations.

Based on disclosure occurring at page 8, line 26 to page 9, line 6 of the specification, Applicants have instantly amended each of claims 1-2 to positively recite that the weight of the volatile component is "based on the weight of the polymer fine particles and the volatile component".

Based upon the amendments made herein to claims 1 and 2, it is submitted that the outstanding rejection under 35 USC § 112, second paragraph has been overcome and should now be withdrawn.

Claim Rejections Under 35 USC § 102/103

Claims 1-4 have been rejected under 35 USC § 102(e) or (b) as anticipated by or, in the alternative, under 35 USC § 103(a) over Ottawa et al. (US 4,818,785), Yamazaki et al. (US 6,183,866) or EP 659,823 (Seiichiro et al.). Reconsideration and withdrawal of each of these alternative rejections are respectfully requested based on the following considerations.

The Present Invention and Its Advantages

The invention defined in claim 1 relates to a process for producing a polyolefin-based resin composition comprising melt kneading a polyolefin-based resin together with a small amount of polymer fine particles. The process is characterized by using, as the polymer fine particles, those containing a volatile component in an amount of 0.10 to 90% by weight. In the present invention, a good dispersion of the polymer fine particles in the polyolefin-based resin can be achieved by using such specific fine particles characterized by the content of a volatile component. This effect is shown as favorable properties in a resulting resin composition, and more specifically, as favorable properties in a film obtained from the resin composition. That is, a film made of a resin composition obtained by the process of the present invention has a smaller number of white spots (i.e., so called fish-eye), which are probably caused by coagulated fine particles, than films made of resin compositions obtained by use of polymer fine particles with a volatile component content of less than 0.10% by weight. In this respect, the Examiner's attention is directed to Examples 1-4 and Comparative Example 1 in the specification (see Tables 1-2 at pages 23-24 of the specification).

Distinctions over Ottawa et al. (US 4,818,785)

The cited Ottawa reference relates to a particulate crosslinked amorphous copolymer and discloses a polymer composition comprising such a particulate crosslinked amorphous copolymer and a resin, e.g. a crystalline polyolefin resin. Please see column 3, lines 28-49. In column 11, lines 1-12, the reference also discloses the polymer composition can be prepared by melting and blending the ingredients by use of a known kneading machine. However, the reference does not disclose or suggest use of polymer fine particles containing 0.10 to 90% by weight of a volatile component. The reference is also silent about the fact that a good dispersion of polymer fine particles can be achieved by use of such specific polymer fine particles.

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Distinctions over Yamazaki et al. (6,183,866)

The cited Yamazaki et al. reference discloses the addition of fine particles to polyolefin and also discloses a method that comprises melting and mixing a mixture of the fine particles and the polyolefin with an extruder. However, the reference does not disclose or suggest any use of polymer fine particles containing 0.10 to 90% by weight of a volatile component. The reference is also silent about the fact that a good dispersion of polymer fine particles can be achieved by use of such specific polymer fine particles.

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Distinctions over EP 659,823 (Seiichiro et al.)

The cited EP '823 reference discloses a polypropylene resin composition comprising propylene polymer particles and a crosslinked polymer fine powder. It also discloses in Example 1 that pellets are obtained by melt-extruding a mixture of propylene polymer particles and a crosslinked polymer powder. However, the reference does not disclose or suggest use of polymer fine particles containing 0.10 to 90% by weight of a volatile component. The EP '823 reference is also silent about the fact that a good dispersion of polymer fine particles can be achieved by use of such specific polymer fine particles.

As stated above, none of the cited references discloses or suggests any use of polymer fine particles containing 0.10 to 90% by weight of a volatile component, and each is silent about the effect of the use of such specific polymer fine particles, that is, the achievement of a good dispersion of polymer fine particles due to the use of such specific fine particles. Based on such considerations, the invention of each of claims 1-4 is not anticipated by, or rendered obvious by, the cited art of record.

Additionally, it is noted that none of the cited references, whether considered singularly or in combination, provide any motivation that would allow one of ordinary skill in the art to arrive at the present invention as claimed. Absent such motivation

in the teachings of the cited art, whether considered singularly or in combination, the outstanding rejection based upon the disclosures of the cited references under 35 USC § 103(a) cannot be sustained.

CONCLUSION

Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to withdraw the outstanding Restriction Requirement of record and to indicate that each of pending claims 1-8 is allowable at present.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey (Reg. No. 32,881) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Attached hereto is a marked-up version of the changes made to the application by this Amendment.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By 

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Attachment: Version with Markings to Show Changes Made

(Rev. 02/20/02)

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The paragraph beginning on page 2, line 14, has been amended as follows:

--However, although the dispersability of the polymer fine particles as the anti-blocking agent in the polyolefin-based resin was fairly improved compared to that of an inorganic antiblocking agent such as silica fine particles, [the] to that of the polymer fine particles as the anti-blocking agent in the polyolefin-based resin is not necessarily sufficient, and the polyolefin-based composition contained coagulated matters of the polymer fine particles. When a film is produced by forming into the film from the polyolefin-based composition, there were problems that the coagulated matters are not dispersed, white spots caused by the coagulated matters are generated, the appearance of the film is deteriorated, and points not inked to the film are generated at printing, etc.--

Table 2 on page 24, has been amended as follows:

Table 2 Physical properties of film

	Amount of polymer fine particle added	Haze	LSI	Anti- blocking property	Numbers of white spot (size 0.2 to 1mm)
	% by weight			MPa (kg/12cm ²)	Pieces/ 25cm ²
Example 1	0.3	3.1	2.3	0.71 (0.6)	8
Example 2	0.3	3.0	2.4	0.71 (0.6)	6
Example 3	0.3	3.0	2.3	0.59 (0.5)	8
Example [3] <u>4</u>	0.3	2.4	2.7	0.71 (0.6)	6
Comparative Example 1	0.3	3.3	2.6	0.71 (0.6)	80

IN THE CLAIMS:

The claims have been amended as follows:

1. (Amended) A process for producing a polyolefin-based resin composition, which comprises melt-kneading 100 parts by weight of a polyolefin-based resin and not less than 0.05 parts by weight and less than 2 parts by weight of polymer fine particles

containing 0.10 to 90% by weight of a volatile component based on the weight of the polymer fine particles and the volatile component, as an anti-blocking agent.

2. (Amended) The process according to claim 1, wherein the polymer fine particles contain the volatile component of 0.10 to 80% by weight based on the weight of the polymer fine particles and the volatile component, and have a weight average particle diameter of 0.5 to 15 μm .